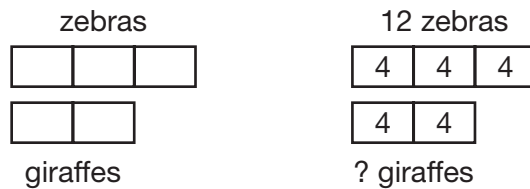# Applying Ratios

You can use a diagram to solve problems about ratios.

A zoo has 3 zebras for every 2 giraffes. How many giraffes does the zoo have if it has 12 zebras? Draw a diagram to solve the problem.

Draw rectangles to model the ratio 3 zebras to 2 giraffes.

Divide the number of zebras into 3 equal parts to find how many animals each part represents. $12 \div 3 = 4$

zebras

12 zebras

4	4	4

giraffes

4	4

? giraffes

Then multiply the number of parts for the giraffes times 4 animals per part to find the number of giraffes.

$4 \times 2 = 8$

The zoo has 8 giraffes.

Draw a diagram to help you solve each problem.

1. One exhibit at the zoo has 7 birds for every 2 mammals. If there are 10 mammals in the exhibit, how many birds are there?

   _____

2. There are 5 children for every 3 adults who visit the zoo. If there are 30 children at the zoo, how many adults are there?

   _____

3. The monkeys get fed 6 buckets of vegetables for every 2 buckets of cereal. How many buckets of vegetables do the monkeys get fed if they get 8 buckets of cereal?

   _____

4. It takes 8 minutes for the train to fill 3 cars with people from the zoo. How long does it take the train to fill 18 cars of people from the zoo?

   _____

5. **Writing to Explain** Arlen buys 2 small cups of food for the animals for 5 tokens. Explain how to use a diagram to find how many cups of food Arlen could buy for 20 tokens.

   _____

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